

NOAA Climate Science and Services Monthly Climate Update



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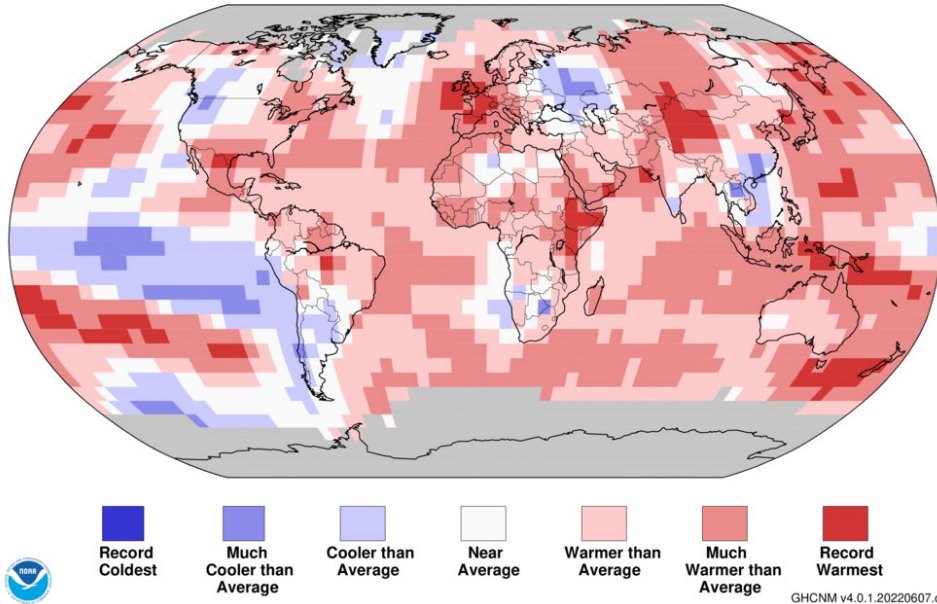
June 2022

Global Temperature (May & Mar-May)

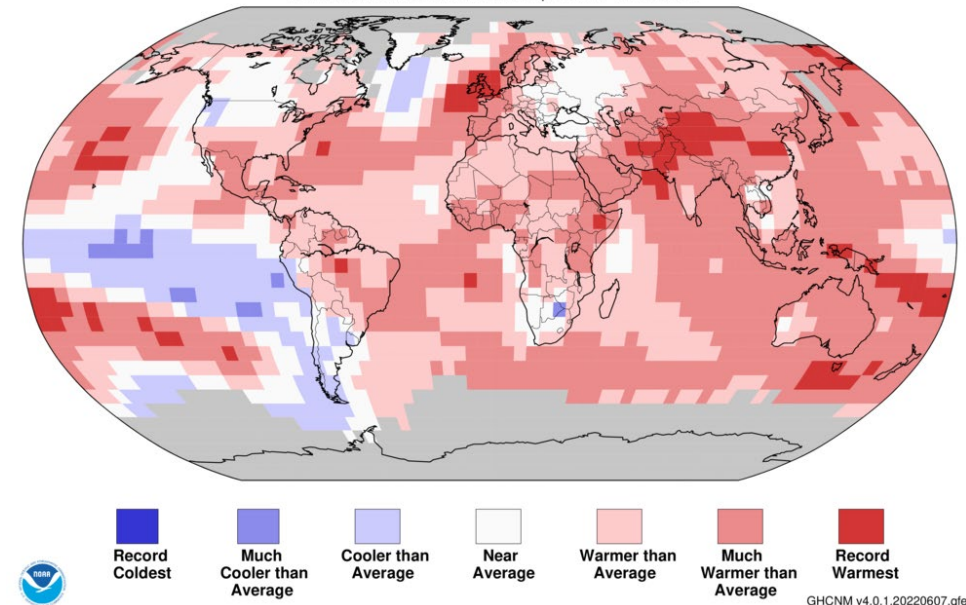
The global temperature record dates back to 1880 (143 years)

Land & Ocean Temperature Percentiles May 2022
NOAA's National Centers for Environmental Information
Data Source: NOAAGlobalTemp v5.0.0-20220608

- **Global Land & Ocean:** $+0.77^{\circ}\text{C}/+1.39^{\circ}\text{F}$; 9th warmest
- **Global Land:** $+1.12^{\circ}\text{C} / +2.02^{\circ}\text{F}$; 11th warmest
- **Global Ocean:** $+0.64^{\circ}\text{C} / +1.15^{\circ}\text{F}$; 8th warmest



Land & Ocean Temperature Percentiles Mar 2022–May 2022
NOAA's National Centers for Environmental Information
Data Source: NOAAGlobalTemp v5.0.0-20220608



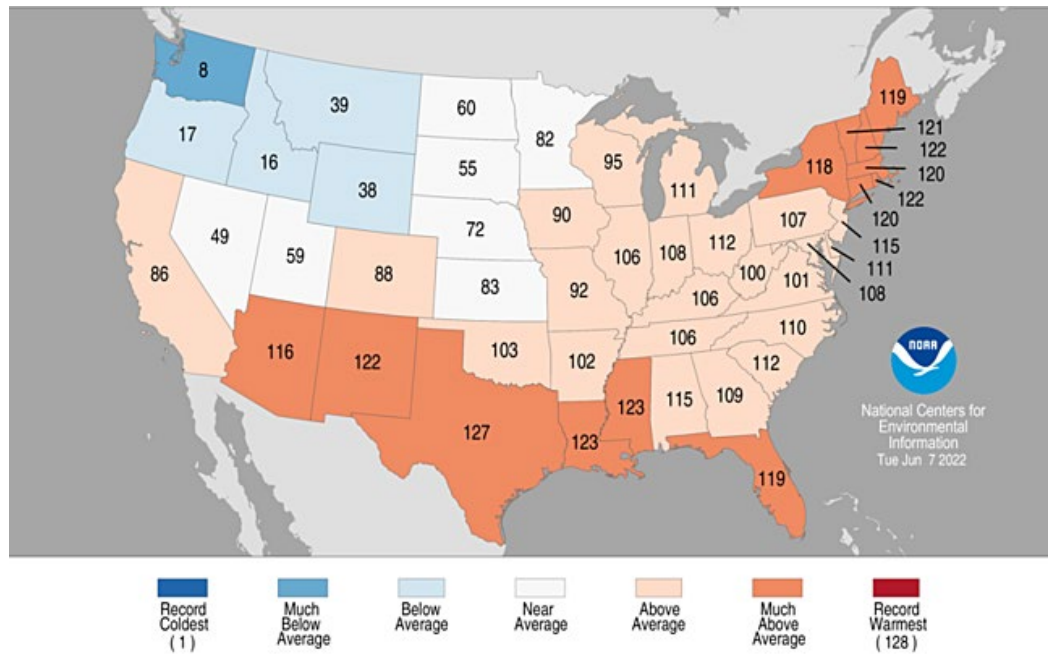
- **Global Land & Ocean:** $+0.85^{\circ}\text{C}/+1.53^{\circ}\text{F}$; 6th warmest
- **Global Land:** $+1.40^{\circ}\text{C} / +2.52^{\circ}\text{F}$; 5th warmest
- **Global Ocean:** $+0.65^{\circ}\text{C} / +1.17^{\circ}\text{F}$; 6th warmest

Contiguous U.S. May 2022

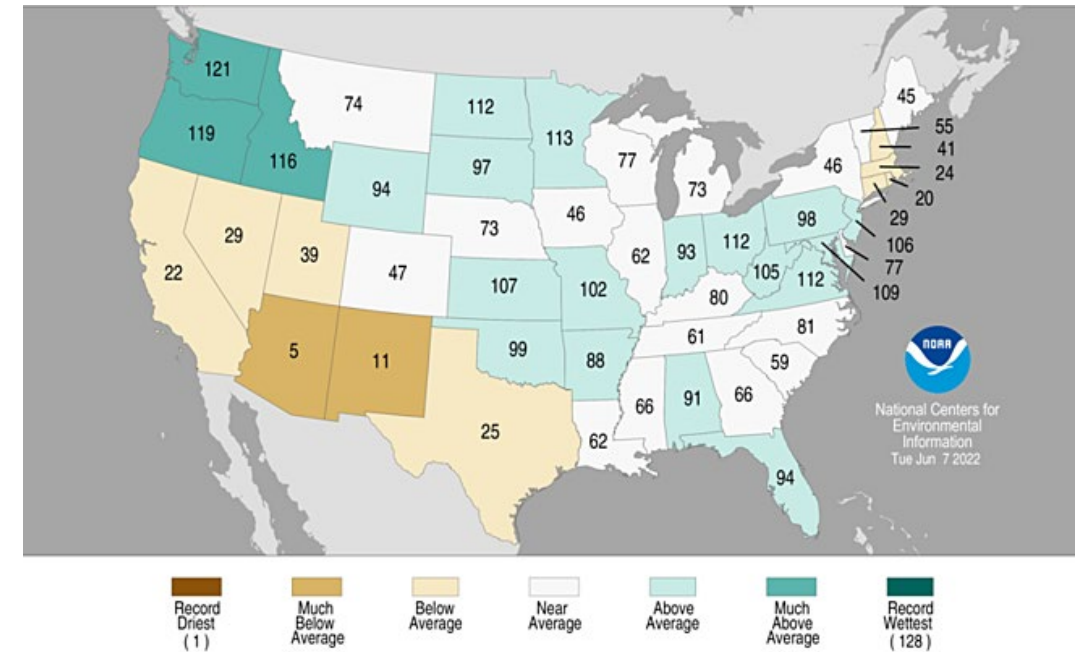
Temperature: 61.9°F (+1.7°F) – above average

Precipitation: 3.17" (+0.26") – above average

Temperature Percentiles: May 2022
Period: 1895-2022 (128 years)



Precipitation Percentiles: May 2022
Period: 1895-2022 (128 years)



- Cool: NW & northern Rockies
- Warm: SW, South & eastern half of CONUS
- WA: 8th coolest May; TX: 2nd warmest May on record

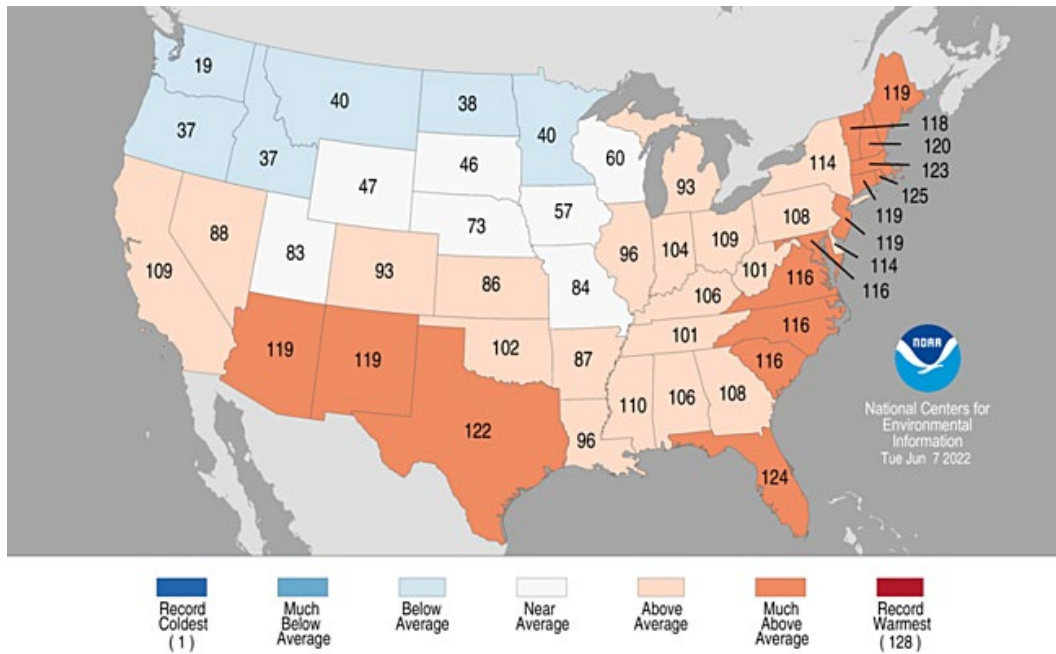
- Wet: NW, n & c Plains, OH Valley, e Gulf Coast
- Dry: CA to TX, parts of NE
- AZ: 5th driest May; WA: 8th wettest May on record

Contiguous U.S. March-May 2022 (MAM)

Temperature: 52.2°F (+1.3°F) – above average

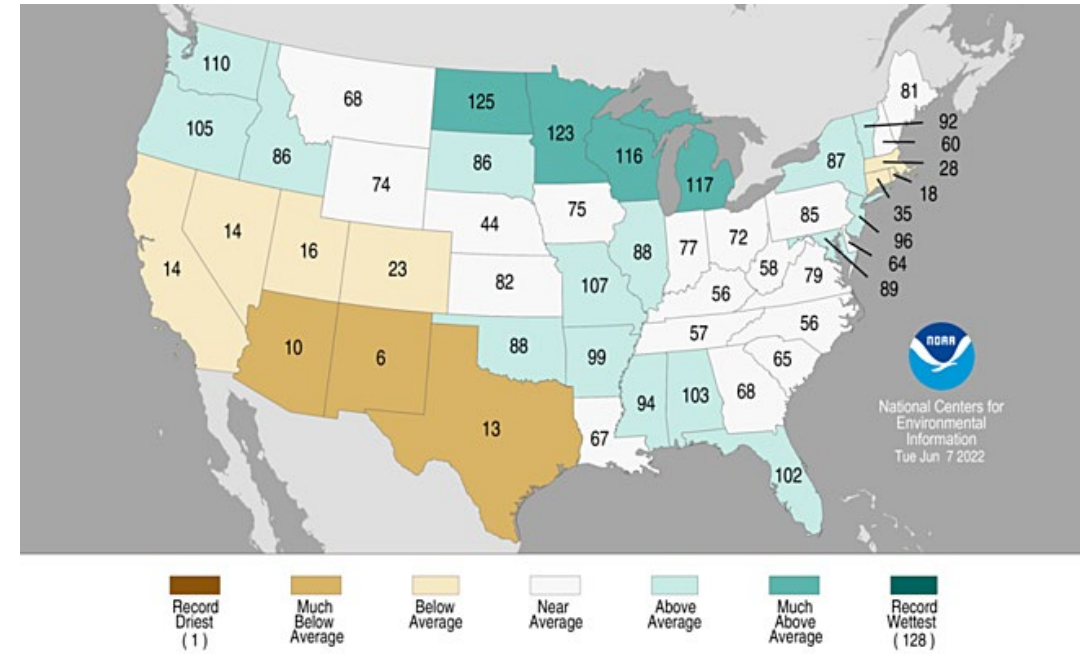
Precipitation: 8.07" (+0.13") – near average

Temperature Percentiles: Mar-May 2022
Period: 1895-2022 (128 years)



- Cool: PNW to Upper Midwest
- Warm: CA to Deep South, MS River to East Coast
- RI: 4th warmest MAM on record (9 add'l states top 10)

Precipitation Percentiles: Mar-May 2022
Period: 1895-2022 (128 years)



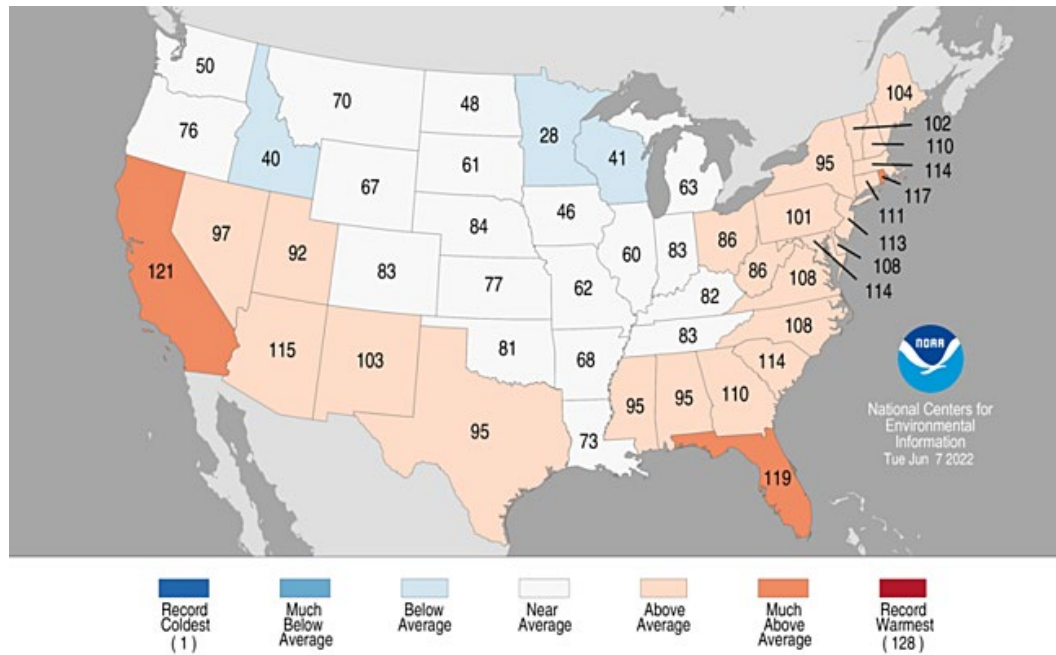
- Wet: NW, n Plains to Great Lakes, c Plains to Gulf Coast
- Dry: CA to High Plains, w Gulf Coast
- NM: 6th driest MAM; ND: 4th wettest MAM on record

Contiguous U.S. January-May 2022 (YTD)

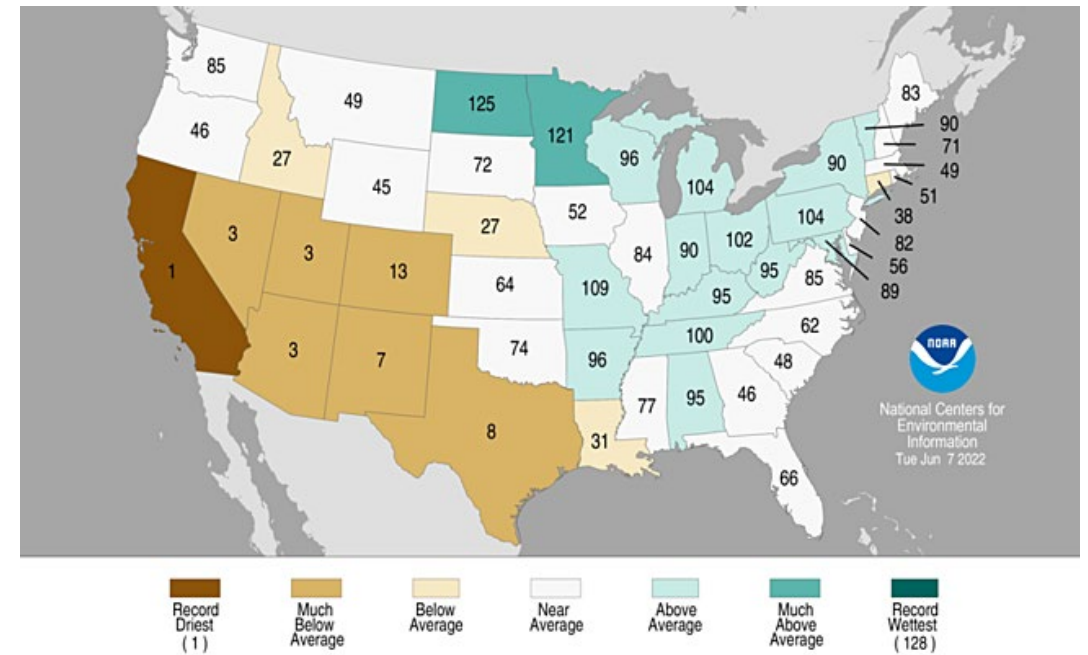
Temperature: 44.3°F (+1.0°F) – above average

Precipitation: 11.48" (-0.91") – below average

Temperature Percentiles – May 2022
Period: 1895-2022 (128 years)



Precipitation Percentiles – May 2022
Period: 1895-2022 (128 years)



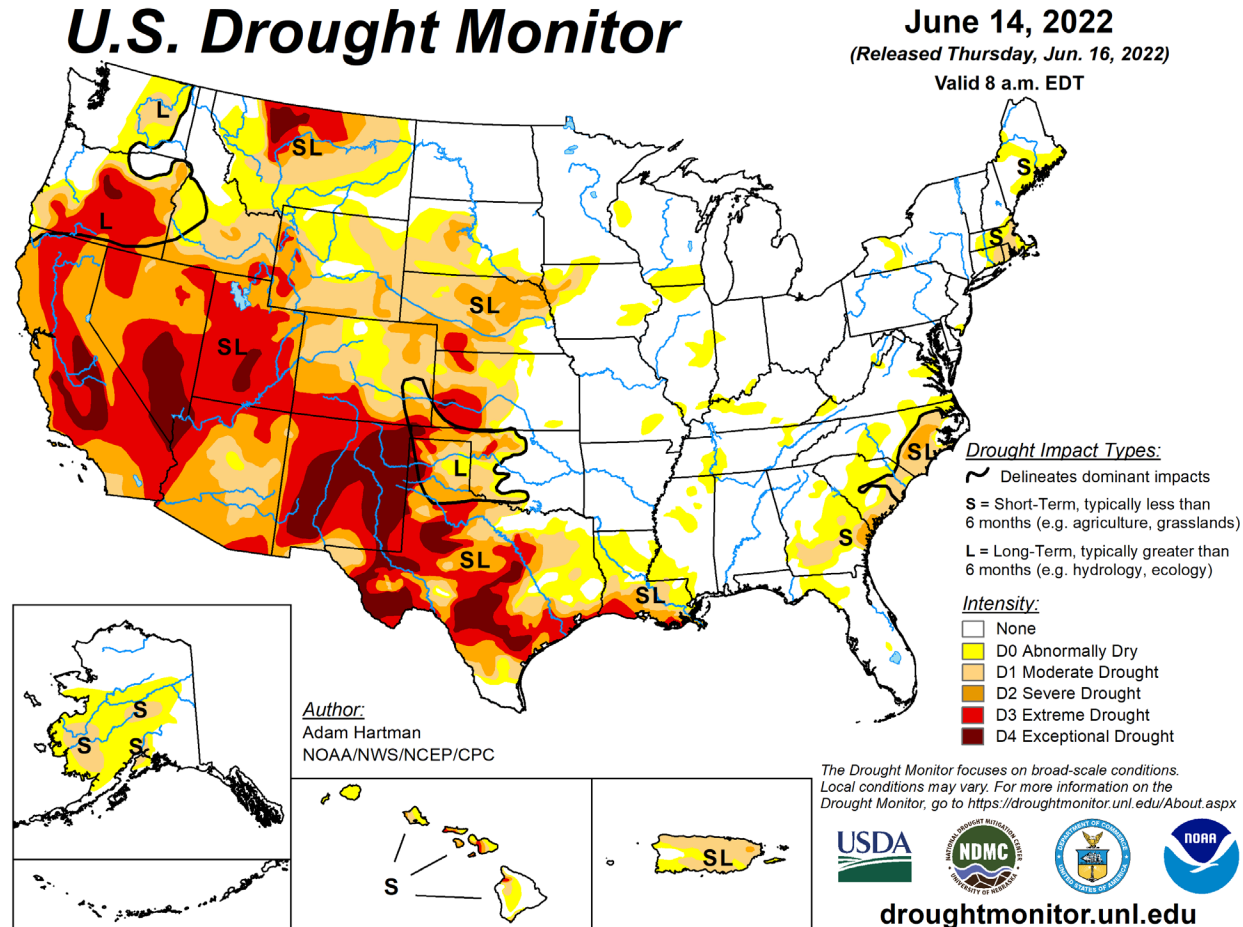
- Cool: parts of NW & northern Plains to Midwest
- Warm: CA to TX, c Gulf Coast to New England
- CA: 8th warmest YTD on record

- Wet: n Plains to Great Lakes, mid-MS Valley to NE
- Dry: West, Deep South, parts of c Plains
- CA: driest YTD; ND: 4th wettest YTD on record

Current U.S. Drought

~44.5% of Contiguous U.S. in Drought

(↓ ~9.2 percent since early May)



Drought severity/extent lessened
across Northwest, northern Rockies,
Plains, parts of Southeast

Drought severity increased
from central California to New Mexico

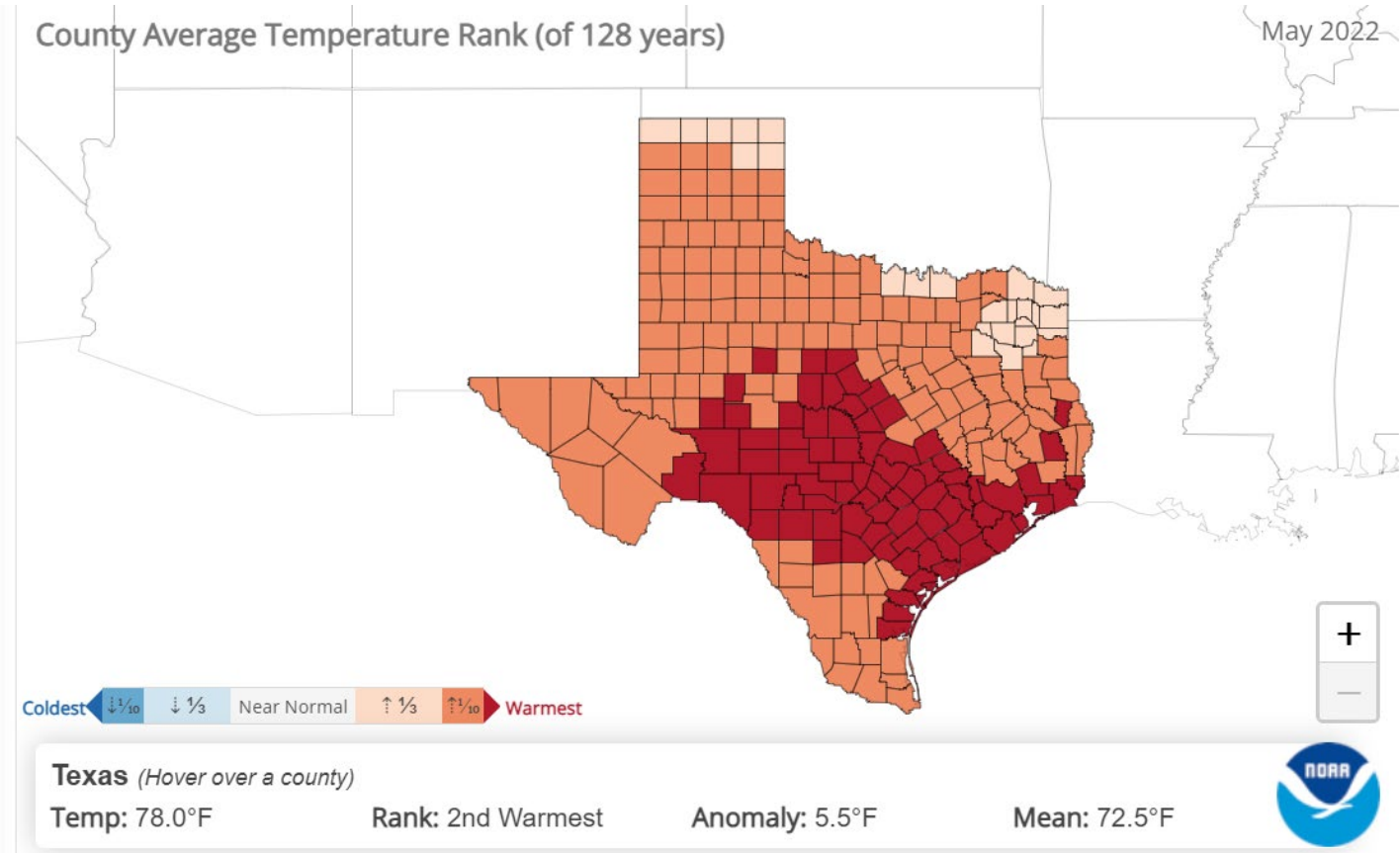
Outside CONUS:
Drought expanded across Puerto Rico
and Alaska while drought
severity/extent lessened across Hawaii

Since 1895, Texas as a whole saw its 2nd Hottest May on Record, with an average statewide anomaly of +5.5°F. Only 1996 was hotter.

79 of the 254 Counties in TX saw record hot temperatures for the month of May.

These included the metro areas of Houston, Austin, San Antonio, and Corpus Christi.

The largest anomalies were seen in Kimble and Menard Counties in the Hill Country, at +8.5°F.

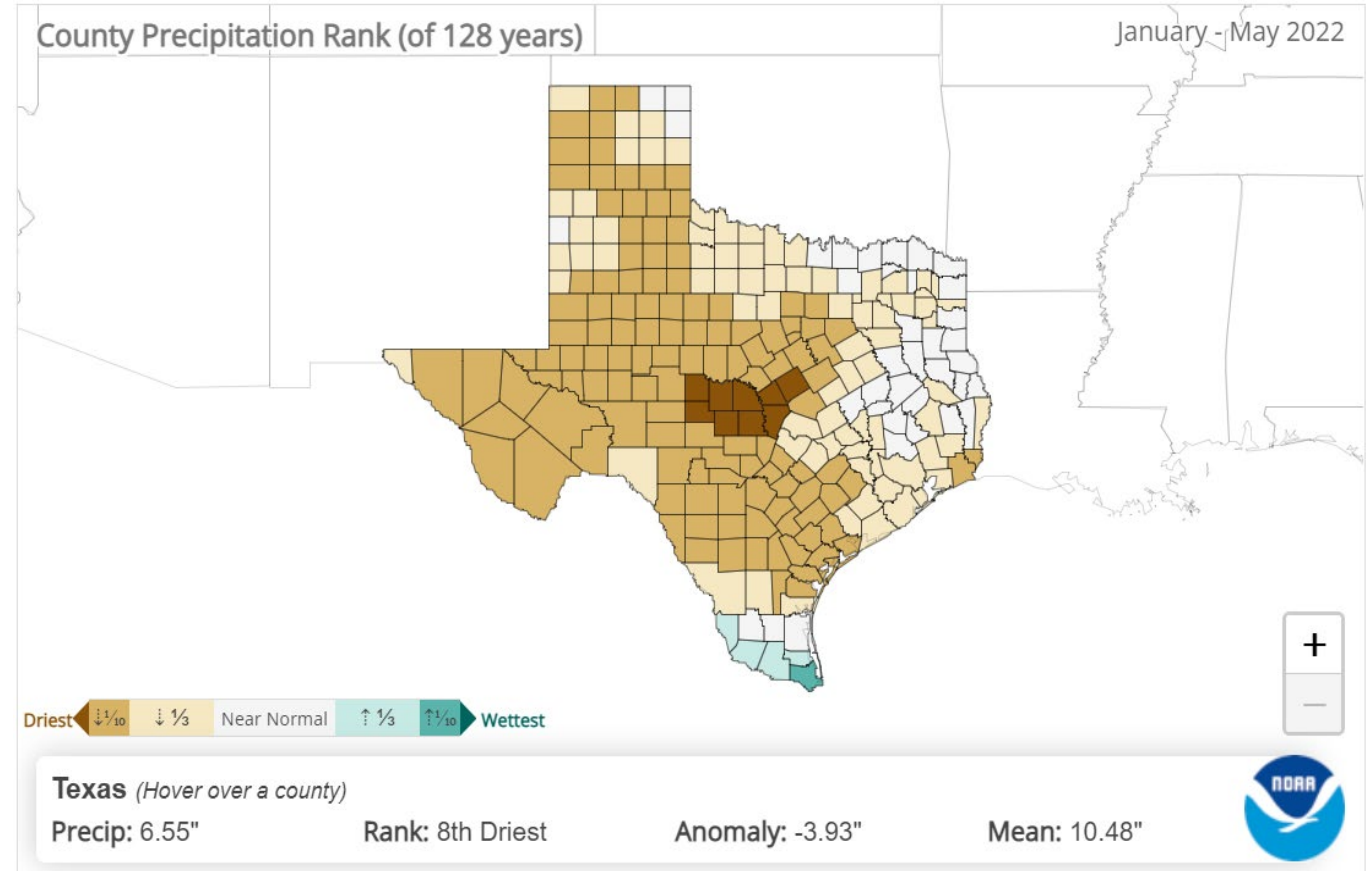


Texas also had its 8th driest January 1-May 31 on record.
Statewide average of 6.55", or about 60% of normal.

Not coincidentally, 9 counties in central TX and the Hill Country have experienced their driest January 1 to May 31 on record.

Driest statewide Since 2011. Of course, 2011 was the hottest and driest summer on record for TX.

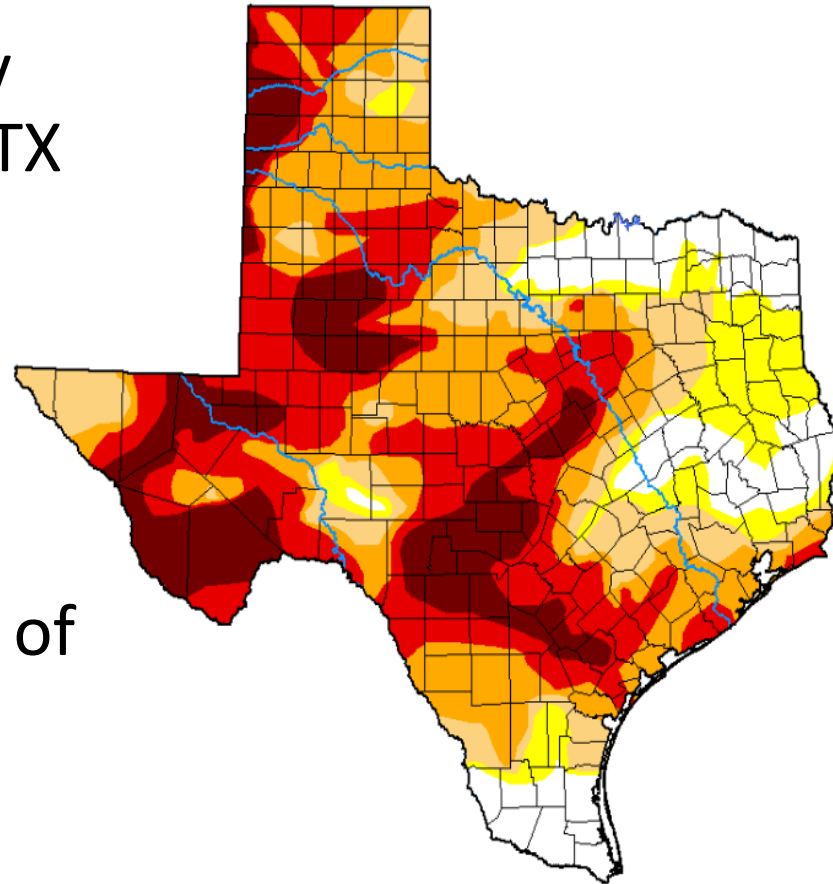
Much of TX has seen record heat the first half of June.



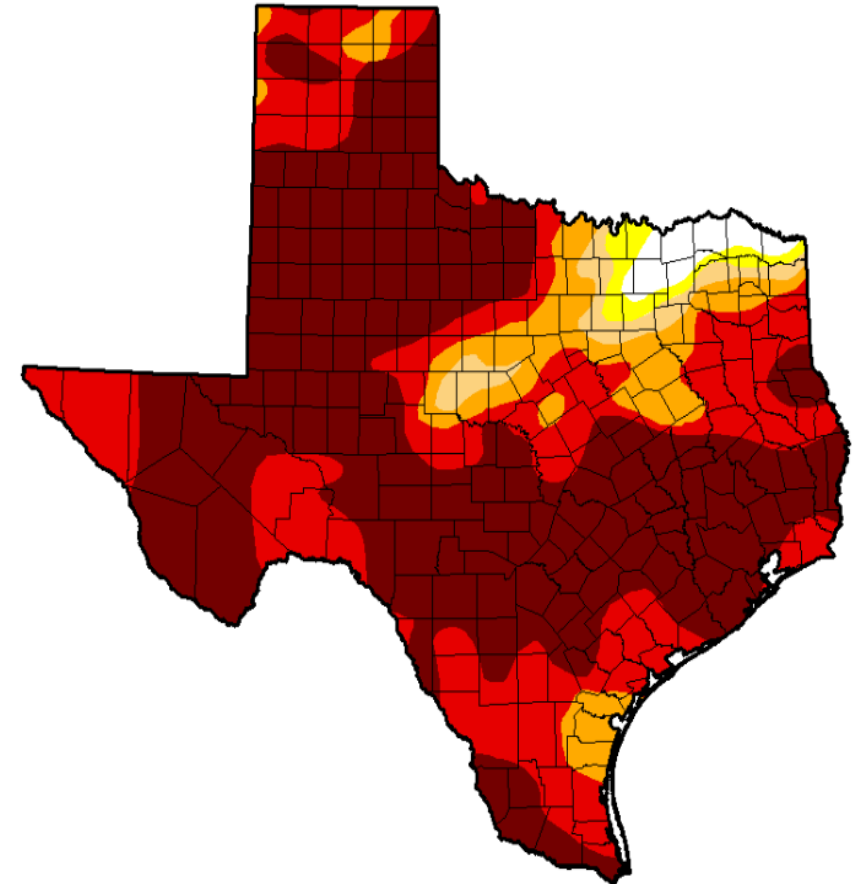
40% of TX is in Extreme (D3) to Exceptional (D4) Drought The highest amount since May 2014.

On the same day
in 2011, 85% of TX
was in **D3** to **D4**
Drought.

But, TX is clearly
trending worse
through the rest of
June.



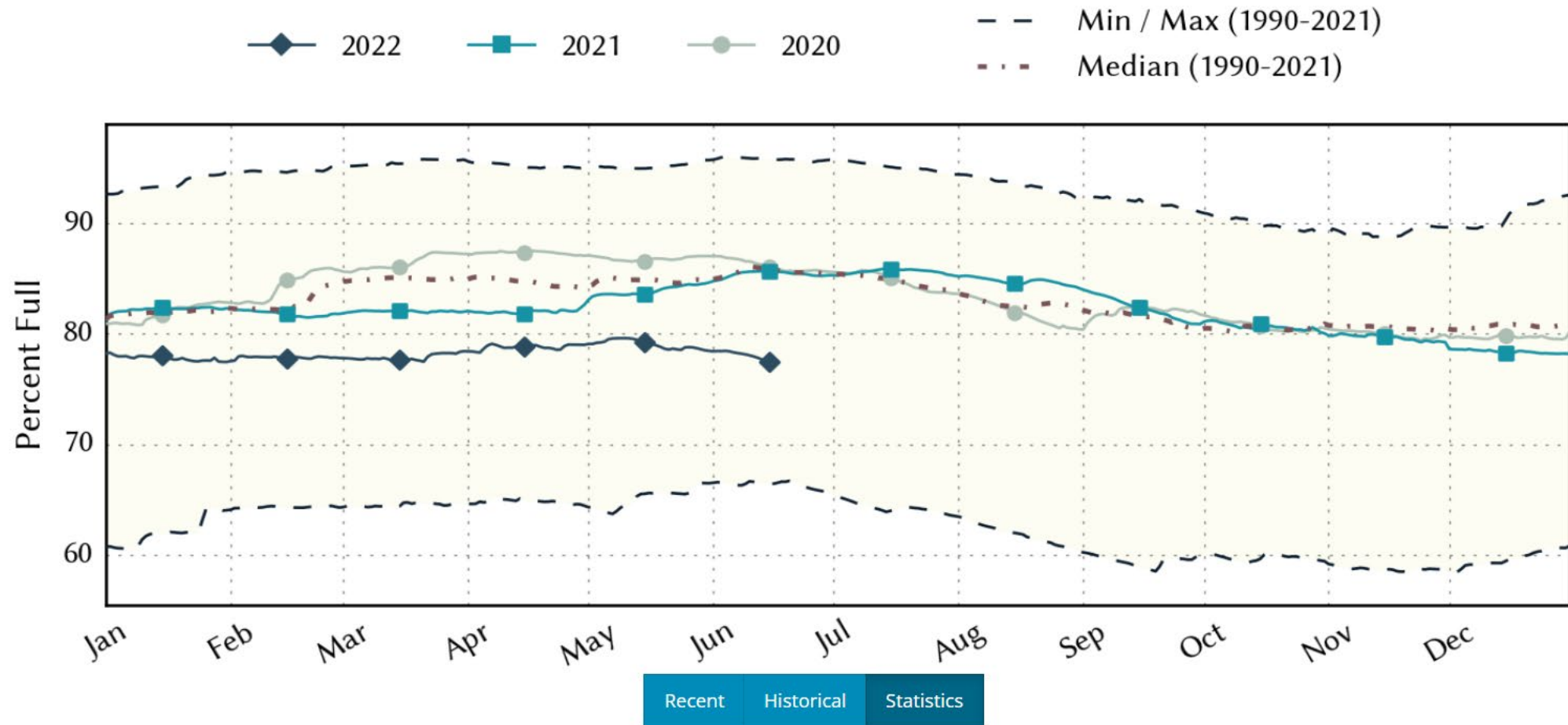
< June 7, 2022 >



< June 7, 2011 >

Statewide Reservoir Levels are at 77.4% of normal, or about 10% below the 30 year average of 85% for mid June.

Reservoir Levels were at 75% of capacity on same date in 2011



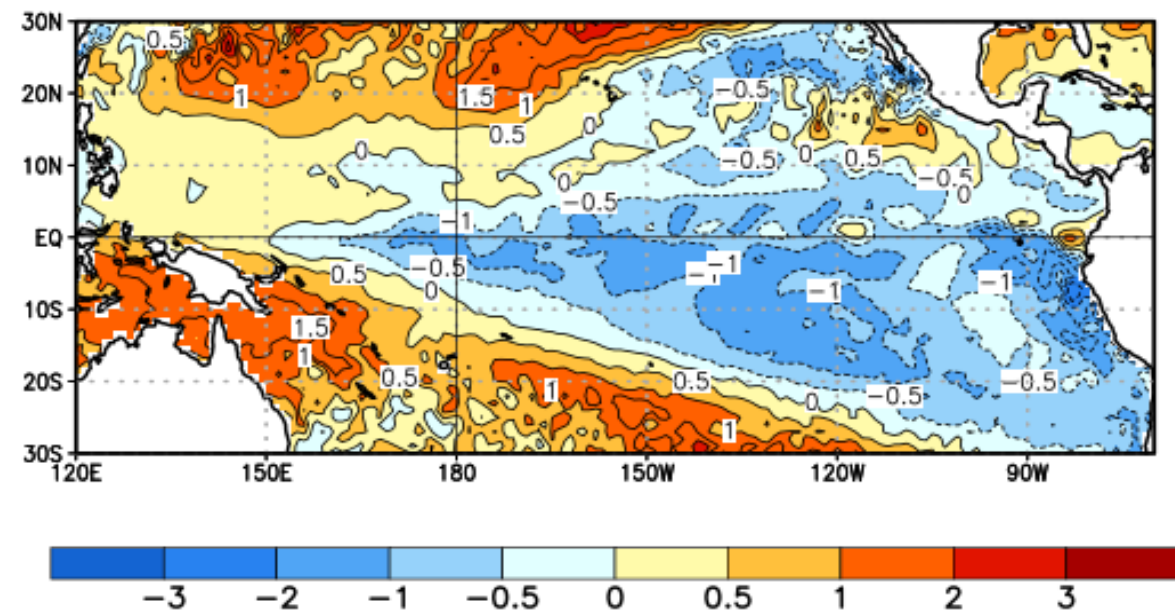
Additional Impacts

- The just completed TX Winter Wheat harvest fell from 74M bushels in 2021 to 40,300M bushels in 2022 – about a 40% drop.
- The Electrical Reliability Council of TX (ERCOT) reported a peak hourly power usage of 74,916 MW on Sunday, June 12th, establishing a new usage record for the state. Unheard of to see this in June.
- Streamflows on the Lower Colorado River Highland Lakes was 3% of normal In May. Should be the month w/highest inflows.



Sea Surface Temperatures and ENSO

Average SST Anomalies
15 MAY 2022 – 11 JUN 2022

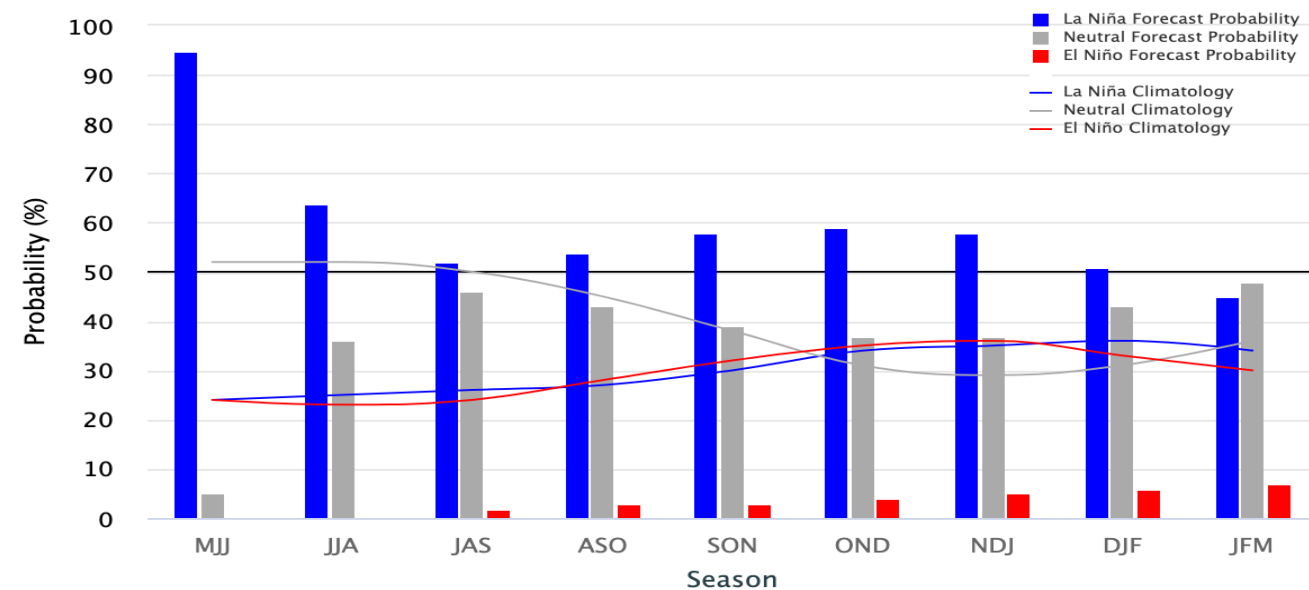


- Sea surface temperatures

- Below normal sea surface temperatures continue across the central and eastern equatorial Pacific Ocean.
- The oceanic and atmospheric observations currently reflect La Niña conditions.

Early-June 2022 CPC/IRI Official Probabilistic ENSO Forecasts

ENSO state based on NINO3.4 SST Anomaly
Neutral ENSO: -0.5 °C to 0.5 °C



- ENSO forecast

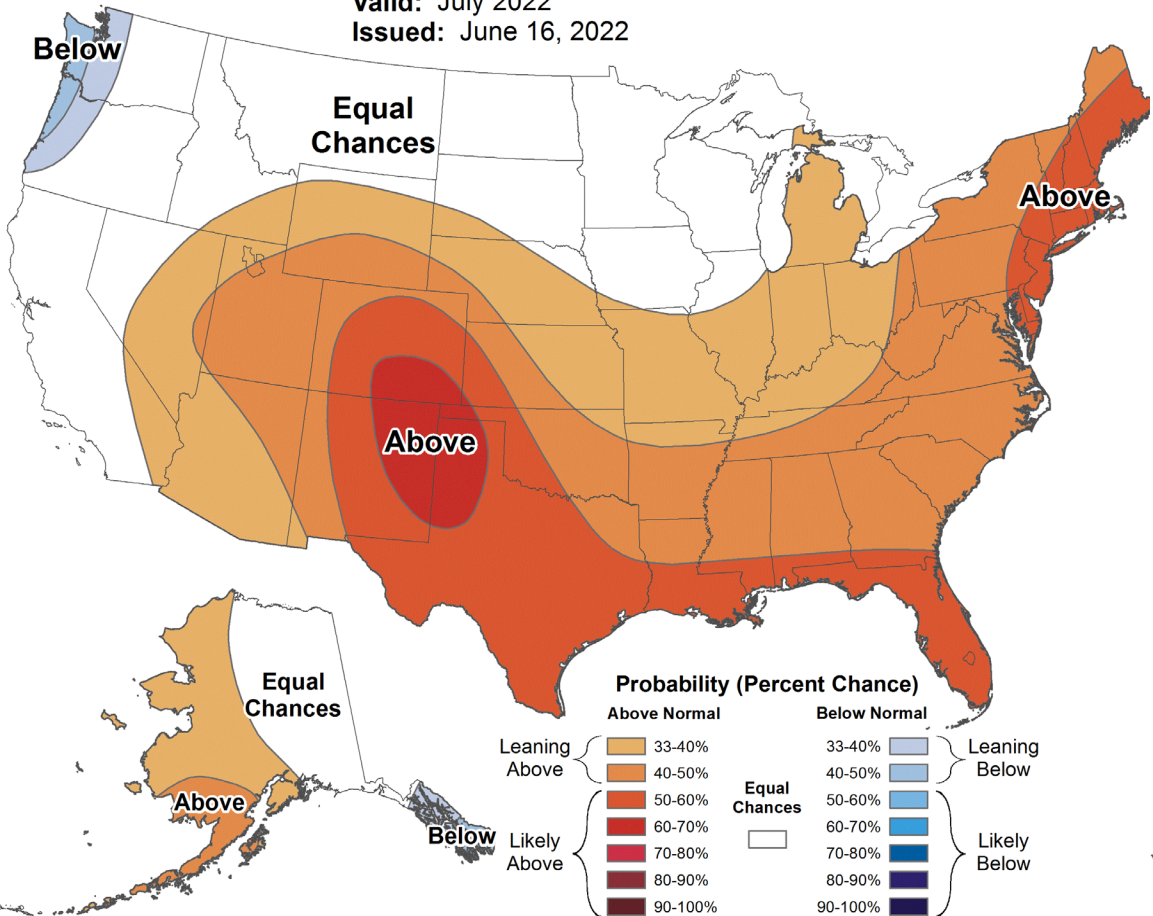
- La Niña is favored to continue during July-August-September.
- Probabilities for La Niña are near 60 percent through the late fall and winter.

Monthly Forecast (July)



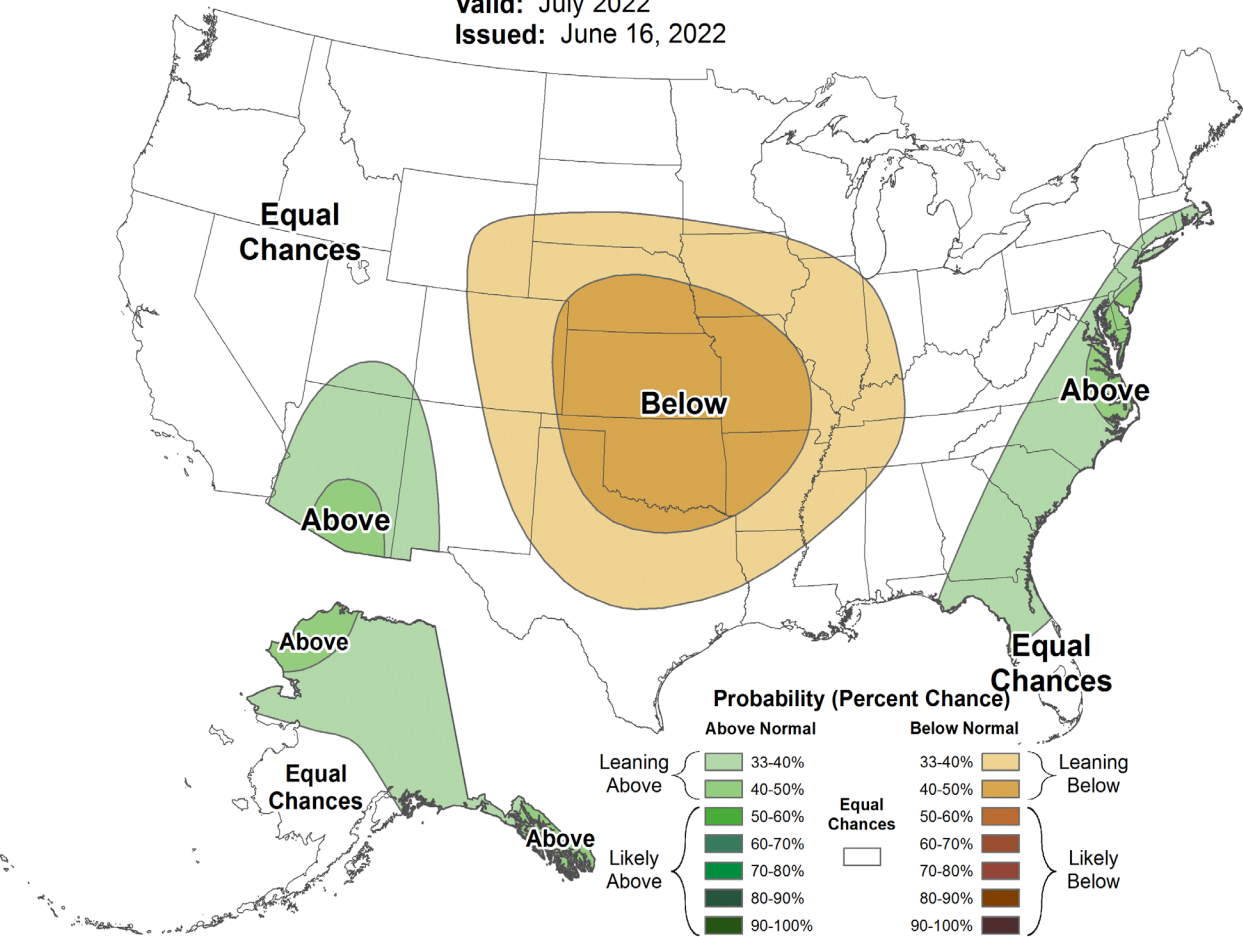
Monthly Temperature Outlook

Valid: July 2022
Issued: June 16, 2022



Monthly Precipitation Outlook

Valid: July 2022
Issued: June 16, 2022

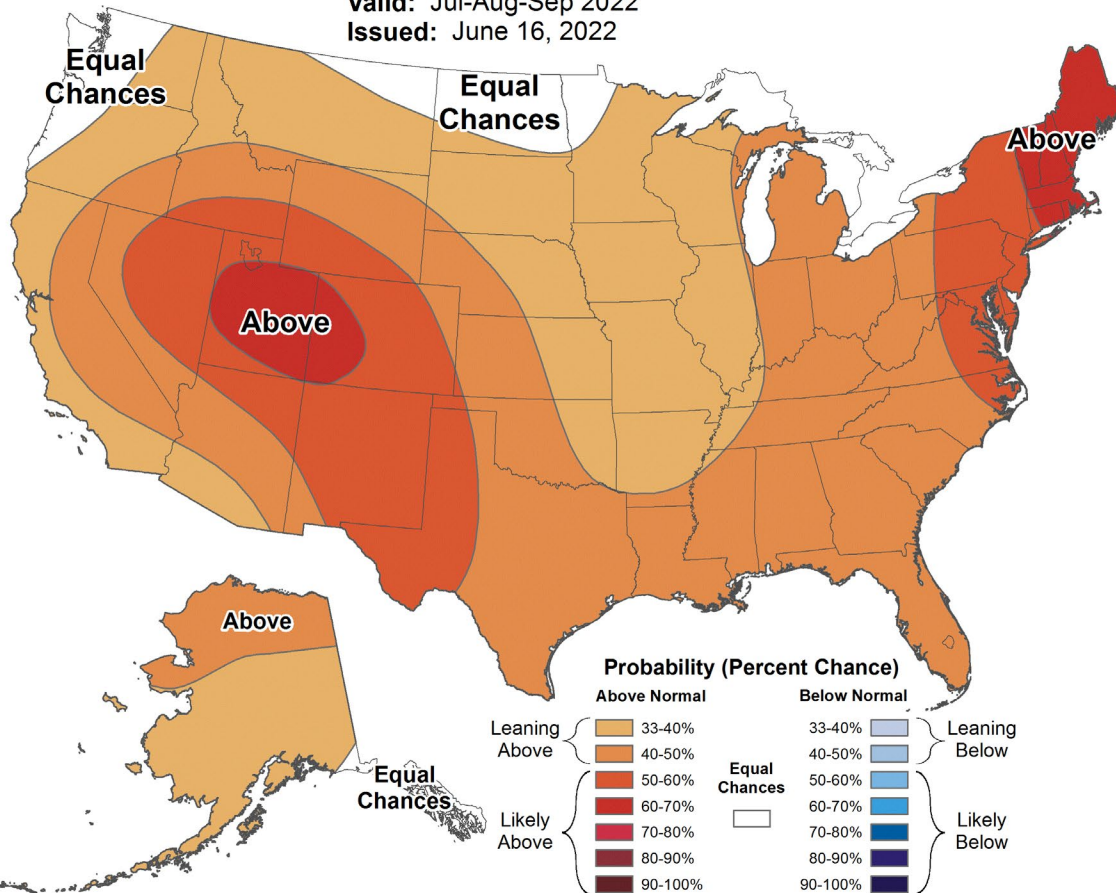


Three-Month Forecast (Jul, Aug, Sep)



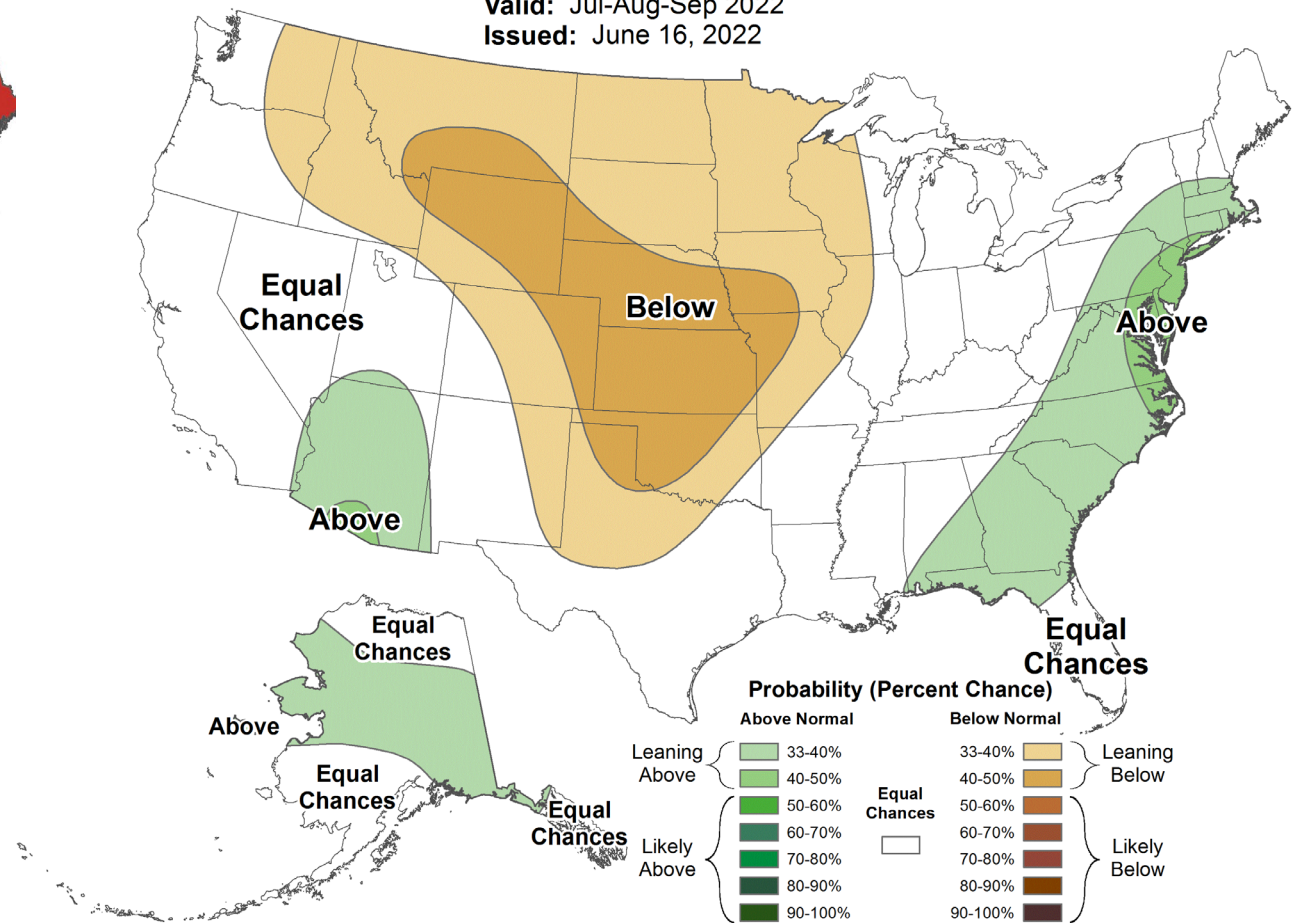
Seasonal Temperature Outlook

Valid: Jul-Aug-Sep 2022
Issued: June 16, 2022



Seasonal Precipitation Outlook

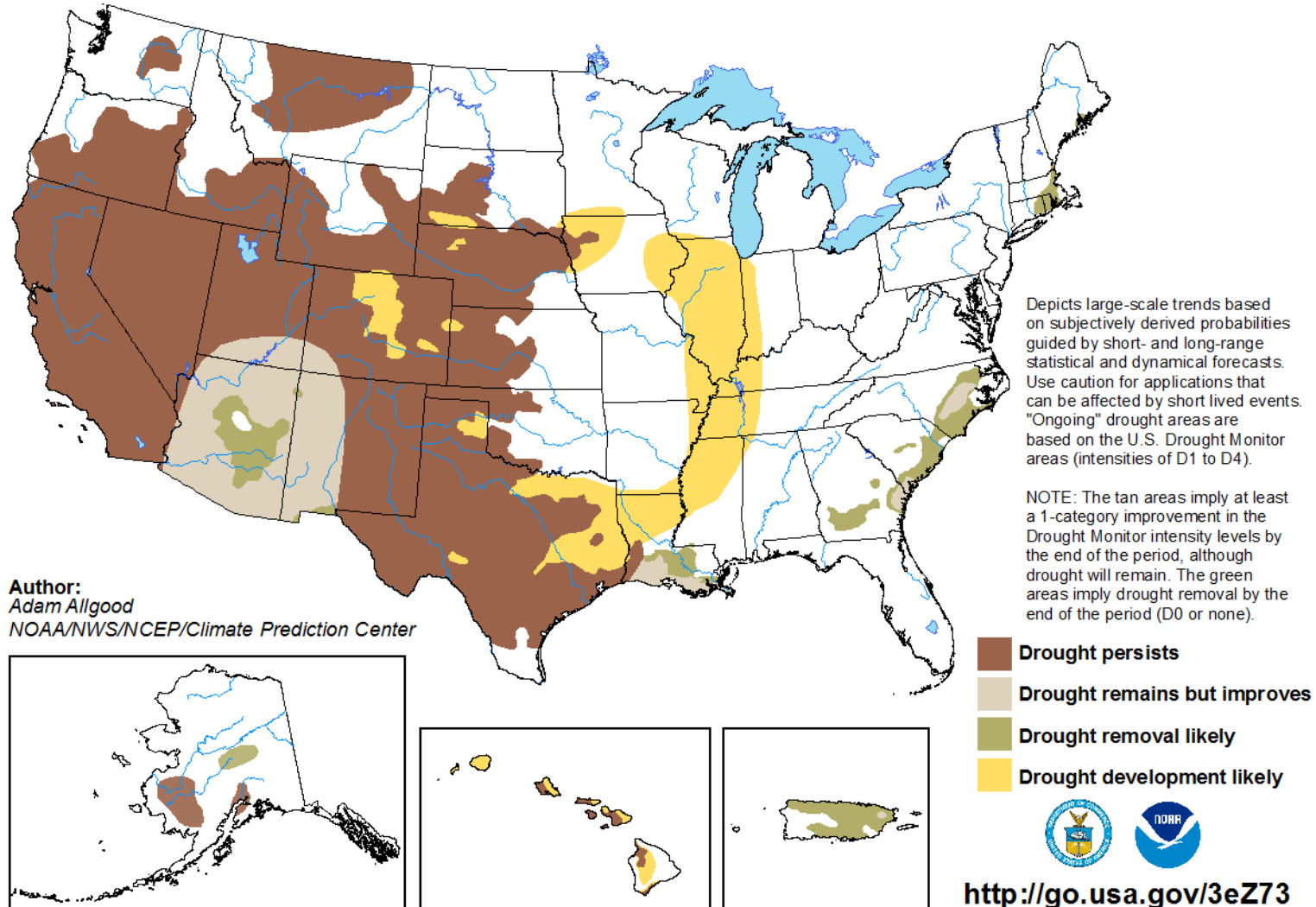
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Drought Outlook

U.S. Seasonal Drought Outlook Drought Tendency During the Valid Period

Valid for June 16 - September 30, 2022
Released June 16



For More Information



TODAY'S PRESENTATION:

- <http://www.ncdc.noaa.gov/sotc/briefings>

NOAA's National Centers for Environmental Information: www.ncdc.noaa.gov

- Monthly climate reports (U.S. & Global): www.ncdc.noaa.gov/sotc/
- Dates for upcoming reports: <https://www.ncei.noaa.gov/access/monitoring/dyk/monthly-releases>

– **NOAA's Climate Prediction Center:** www.cpc.ncep.noaa.gov

- **U.S. Drought Monitor:** www.drought.gov

Climate Portal: www.climate.gov

NOAA Media Contacts: john.jones-bateman@noaa.gov, 202-424-0929 (NOAA/NESDIS PAO)

